



Fernald
Preserve

PRESERVE HIGHLIGHTS

VOL. 1 | ISSUE 1

Spotlight

The Fernald Preserve, which is located on 1,050 acres in northwest Hamilton County, was established following the cleanup and ecological restoration of the former Fernald uranium foundry.

The \$14 million ecological restoration incorporated native plants and grasses that were identified in an 1819 land survey. The current landscape features 400 acres of woodlots, 327 acres of prairie, 140 acres of open water and wetlands, and 33 acres of savanna. A diverse array of wildlife is already well established at the preserve and we are on schedule to open to the public in June 2008.

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December 5 Community Meeting 6:30 p.m.

Crosby Senior Center
8910 Willey Road
Harrison, Ohio 45030

Plant Profile



The second largest man-made wetlands in Ohio were created as part of the restoration efforts at the Fernald Preserve. Pond muck from well-established off-site wetlands was brought in to inoculate several of these wetlands. Seeds, rhizomes, and macroinvertebrates in the muck helped establish a well-balanced ecosystem. Although the fragrant water lily (*Nymphaea odorata*) was not a part of the original restoration wetland plant list, it's a good example of how native plants establish themselves in conducive environments.



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Did you
know...

The Blackpoll Warbler sometimes stops at the Fernald Preserve on its migratory route. The trip from its Alaskan breeding grounds to Brazil could be over 4,500 miles.

Legacy Management Goals

Goal 1

Protect human health and the environment through effective and efficient long-term surveillance and maintenance.

Goal 2

Preserve, protect, and make accessible legacy records and information.

Goal 3

Support an effective and efficient work force structured to accomplish Departmental missions and assure contractor worker pension and medical benefits.

Goal 4

Manage legacy land and assets, emphasizing protective real and personal property reuse and disposition.

Goal 5

Improve program effectiveness through sound management.



Legacy Management's Mission:

To manage the Department's post-closure responsibilities and ensure the future protection of human health and the environment. Legacy Management has control and custody for legacy land, structures, and facilities and is responsible for maintaining them at levels consistent with Departmental long-term plans.



Meeting the Mission

Goal 1: The site's first major erosion control project was recently undertaken in the former Waste Pits Area. This project was unique in that it involved the return of heavy equipment that was last seen on site during the closing days of cleanup. Erosion gullies developed in several drainage channels between basins that were created when the six former waste pits were remediated. In addition to correcting the initial erosion problems, the work will increase the amount of water flowing into one of the largest basins. Surface water in this basin provides a direct recharge of clean water into the Great Miami Aquifer, which in turn speeds up groundwater remediation. Restoration personnel removed a culvert between two basins. The new channel that was created is approximately 12 inches lower than the original pipe. The new channel was seeded and lined with erosion control matting. Soil removed during excavation operations was used as fill to improve drainage in other areas. Additional erosion control projects will take place next year in the former Production Area, the Borrow Area, and the Southern Waste Units.

Fun Fact


A pair of Northern Harriers have made their way south from Canada and will likely be spending the winter near the Fernald Preserve. The large birds are easily recognized by a low graceful flight, white rump, and a wing span over 40 inches. They belong to the raptor group and feed on small birds and mammals found in open wetlands, meadows, and grasslands.

Nature Nook



Big Brown Bat *Eptesicus fuscus*

A thriving bat population is one sign of a healthy ecosystem. Bats are a key contributor to insect control and eat mosquitoes, cicadas, and grasshoppers to name a few. Portions of the Fernald Preserve provide excellent summer habitat for a variety of bats, including the endangered Indiana bat (*Myotis sodalis*). Since 1988, the Center for North American Bat Research and Conservation at Indiana State University has surveyed the bat population at Fernald. In 1999, researchers captured an adult female Indiana bat. As a result, an effort was made to preserve and

enhance the large, mature woodlot along the northern reach of Paddys Run Creek. It was decided during site remediation to keep the railroad trestle that spans the creek in place to provide roosting habitat. The capture of bats and weekly monitoring near the trestle this summer showed that the area is used by big brown, eastern red, and eastern pipistrelle bats. During the monitoring season, which concluded in mid-October, no Indiana bats were seen or captured. Bat monitoring will resume again next spring. 




Individual Effort

Harold Swiger –
Restoration Ecologist

Harold Swiger is at war with honeysuckle. "Seventy-five years ago, there wasn't any at all in the area," says Harold, "but now it's hard to find an acre of land that doesn't have it. It's very prolific, and if we don't do something to control it, then honeysuckle is all we'll have." He should know. Harold holds a bachelor's degree in forestry, and since 1999, he's been a restoration ecologist at the Fernald Site. His duties include controlling the spread of invasive vegetation (such as honeysuckle), planting native vegetation, and monitoring the area's plant population and wildlife.

Part of the mission at Fernald is to return the land to a natural state—a process that Harold plays a big role in. He and his team strategize ways to expand the forest, create prairies, and build up wetlands. "In many areas, we restored this site from subsoils,

and we've changed some of these farm- and field-type areas to forests, scrublands, and prairies," says Harold. Although their progress is impressive, it was not easily gained; prairies and forests take a long time to become established, and Harold and his coworkers had to work together to overcome obstacles, including inclement weather and predation by deer and geese. "These sweet little animals, they look so innocent, don't they?" jokes Harold. "In our wetlands, the geese are just as bad as the deer sometimes, so we have to deal with both of them."

Harold's enthusiasm for nature, teamwork, and innovation has contributed to the success of the Fernald Preserve. "I've found that just by working together, we can accomplish what hasn't even been thought of before," he says. "A lot of things we've done have been things that somebody maybe had an idea of already, but we've taken them and changed them to make them even better. When you can develop and learn something like that, it's very gratifying." 



Visitors Center

Plans have been finalized and a contract has been awarded to convert an existing warehouse at the Fernald Preserve to a Visitors Center. The center will provide visitors with an in-depth account of the site's varied history including the Native American presence, settlement and farming, the Cold War and uranium production, and the site's ultimate environmental cleanup and ecological restoration.

The University of Cincinnati's College of Design, Architecture, Art, and Planning has designed the Visitors Center and the firms of Megan Construction Company and GlaserWorks were awarded the construction contract. The center is scheduled to open next summer. 



PRESERVE HIGHLIGHTS



As a community asset, the Fernald Preserve will foster wildlife habitat and provide educational opportunities through environmental stewardship.

Community Relations

The Fernald Preserve is a unique resource used by numerous small groups. Even though the grounds are not open on a daily basis, requests for guided tours are increasing. More than 20 tours have been conducted in the last 3 months. Tour participants have included students and teachers from Miami University and the University of Cincinnati, local birders, a wildflower organization, and a hiking club. We've also taken our show on the road to gatherings such as an environmental event held at Procter & Gamble Miami Valley Laboratories, to present the Fernald story to a variety of groups.

The Fernald Preserve maintains an active public outreach program with schools, local elected officials, conservation organizations, and other stakeholder groups. If your organization would like to learn more about the Fernald Preserve or tour the site, please contact Sue Walpole at (513) 648-4026.

Think Green

E-mail fernald@LM.doe.gov if you would like to receive this quarterly newsletter electronically.